

22 Things That Made the World a Better Place in 2022

WIRED UK – December 30, 2022

From spinal implants that allow paralyzed people to walk to smashing an asteroid off course with a rocket, this wasn't just a year of negative headlines.

It seemed as if the world was plunging from one crisis to another this year. Just as most countries broke free from the shackles of the pandemic, the horror of war returned to Europe, millions around the world suffered at the hands of extreme weather, and the double pain of energy shortages and inflation arrived. But thanks to the hard work of scientists and a bunch of companies and policymakers, it wasn't all bad. Here's our rundown of the best news to come out of 2022.

US renewables generated more power than coal and nuclear

More than one-fifth of all electricity in the US now comes from hydropower, wind, and solar, meaning that renewables have narrowly overtaken coal and nuclear, which make up 20 percent and 19 percent of the energy mix respectively. The only other year this was the case was 2020—but back then overall power generation was reduced due to the pandemic. Read more at [Scientific American](#).

The first train line switched fully to hydrogen

Germany has put into service the world's first fleet of hydrogen-powered trains. The fleet of 14 engines has replaced diesel trains on a commuter line near the city of Hamburg, where the high costs of electrification would be too expensive. Hydrogen trains are equipped with fuel cells that generate electricity by combining hydrogen and oxygen, producing no emissions other than water vapor. Read more at [Deutsche Welle](#).

Lab-grown meat was deemed safe to eat

Meat without the slaughter of an animal could soon be dished up in American restaurants. The US Food and Drug Administration has deemed a Californian company's cultivated chicken safe to consume, bringing it one step closer to commercialization. Upside Foods grows the meat from real animal cells in bioreactors and will initially offer it for tasting in a small number of top restaurants. Read more at [WIRED](#).

Scientists found a way to reduce shark bycatch

A battery-powered device, called SharkGuard, prevents sharks and rays from accidentally getting caught in commercial fishing nets and lines by emitting a short electrical pulse every two seconds. These pulses temporarily overstimulate the marine animals' electrosensory organs, called ampullae of Lorenzini. When this happens, they choose to swim away, unharmed. Read more at [The Guardian](#).

Countries agreed on climate and biodiversity funding

Following the historic decision at COP27 in November to financially compensate the countries worst affected by the climate crisis, there's now also a financial package for biodiversity. At the UN biodiversity conference in Montreal in December, countries agreed to allocate \$200 billion annually by 2030 to protecting biodiversity. \$30 billion of this should come from countries in the Global North for conservation efforts in developing countries. Read more at [Carbon Brief](#).

Beavers were given legal protection in England

Four hundred years after they were hunted to extinction for their fur, meat, and glands, beavers are now a protected species in England. Since October it's been illegal to deliberately trap, injure, kill, or otherwise disturb the charismatic rodents, whose dams create wetlands. The reason for the law change? Hundreds of reintroduced beavers live in England today, so the government now officially recognizes them as native wildlife. Read more at [The Guardian](#).

Wild mammals made a comeback in Europe

Once on the brink, populations of iconic animals like gray wolves, brown bears, bison, and, yes, beavers are thriving again in Europe thanks to legal protections, changes in land use, and human interventions like rewilding. Initially the beaver colonies in England reappeared through illegal releases or escapes from private collections, but more recently the UK government has authorized releases in enclosures—in 2002, nine beavers were brought in from Norway and officially released in Kent. Read more at the [BBC](#).

A rare pigeon was captured on camera

For the first time in 140 years, researchers have sighted and scientifically documented a rare bird, the black-necked pheasant pigeon. The large ground-dwelling species is found only deep in the forests of Papua New Guinea and was considered lost to science and possibly extinct. Read more at [CNN](#).

NASA gave us a detailed look at distant galaxies

The James Webb Telescope, the largest space telescope ever built, reached its destination in orbit around the sun in January, following decades of planning and a million-mile journey from Earth. Since then, the \$10 billion observatory has captured mesmerizing images of a planet outside our solar system, nebulae where stars are born, and distant galaxies. Read more at [Science](#).

DART proved we can protect Earth from asteroids

No asteroid or comet is currently on a collision course with Earth, but it's best to be prepared for the worst. In September, NASA and its partners deliberately plowed the DART spacecraft into a small asteroid at 14,000 miles per hour to see if the impact could deflect its path. It did. But let's hope we never have to do this for real. Read more at [WIRED](#).

Humans got one step closer to returning to the moon

On December 11, the Orion spacecraft crashed into the Pacific Ocean after a 25-day flight past the moon. The uncrewed test flight was part of Nasa's Artemis mission, which plans to send the first woman and first person of color to the moon as early as 2025. The moon has become a popular destination for other national space agencies and private companies too, with several other test flights taking place this year. Read more at [Scientific American](#).

Alzheimer's became partially treatable

In a clinical trial of nearly 1,800 people with early Alzheimer's disease—the most common form of dementia—an antibody drug slowed the rate of cognitive decline by 27 percent in patients treated for 18 months. This follows decades of frustration with other drugs designed to slow or stop Alzheimer's. That

said, the new treatment is not without risks, including brain bleeds and swelling, and 7 percent of people given it had to stop because of side effects. Read more at [NPR](#).

Doctors performed the first pig-to-human heart transplant

In January, David Bennett became the first person to have a pig's heart successfully transplanted—though the 57-year-old handyman from Maryland died two months later. Yet even a few weeks is a long time in so-called xenotransplantation, and researchers are keen on more human trials. In the long term, xenotransplantation may be key to ending organ shortages. Read more at [Discover](#).

Spinal implants helped paralyzed people walk again

Several people with severe spinal injuries were able to take some first steps within hours of neurosurgeons implanting nerve-stimulation devices into their spines. And with months of consistent training and by controlling the device using a touchscreen tablet, one patient even regained the ability to cycle and swim independently. Read more at [CNN](#).

Hair follicles were grown for the first time in a lab

A Japanese research team successfully created hair follicles by modifying the embryonic skin cells of mice. The follicles grew for up to a month and reached up to 3 millimeters in length. Their technique could offer an approach to treating hair loss or an alternative to animal testing. The researchers are now working on repeating the experiment with human cells. Read more at [New Scientist](#).

Abortion rights are advancing—outside the US

While Americans suffered the loss of the constitutional right to abortion, other countries positively reformed their laws. In February, Colombia became the eighth country in Latin America and the Caribbean to decriminalize abortion in the early stages of pregnancy. Finland and Malta are also in the process of easing their abortion laws, which are some of the strictest in the European Union. Read more at the [Times of Malta](#).

More countries banned conversion therapy

Laws against practices intended to forcibly change a person's sexual orientation or gender identity, known as conversion therapies, have been gaining momentum around the world. France and New Zealand banned these harmful practices at the beginning of the year, and in October, Mexico's senate voted on a bill that would make conducting conversion therapies a criminal offense (the bill is now awaiting approval from the lower house). Read more at the [Gay Times](#).

AI tools changed the way we create

A number of AI tools have broken new ground in supporting human creativity. DALL-E 2 can turn text inputs into vivid images, while language models like ChatGPT can answer complex questions and write relatively coherent essays or computer code. But ChatGPT is far from perfect: It often provides inaccurate answers. Plus, it can only generate answers using the data it has been fed and trained, which runs up to 2021. So its knowledge base is already out of date, and the system can't search the internet for new information—yet. Read more at [Slate](#).

Patagonia founder gives away his billions to protect the environment

In September, Yvon Chouinard, the 83-year-old founder of the American clothing brand Patagonia, announced that he had transferred ownership of his \$3 billion company to a set of trusts and nonprofits. All of the company's profits, which amount to around \$100 million per year, will be used to help fight climate change. Read more at [The New York Times](#).

The shorter working week finally caught on

In June, 70 UK companies began the largest ever trial of a four-day working week, with around 3,300 employees working fewer hours with no cuts to their pay. After six months, the companies saw happier employees, and productivity had either remained the same or improved. Now a total of 100 British companies have agreed to make the four-day week permanent. Read more at [The Guardian](#).

Young adults in Europe received cultural gifts for their birthdays

In a bid to revive creative industries that have suffered from years of funding cuts and the pandemic, Germany announced in November that anyone turning 18—which will be an estimated 750,000 people in 2023—will be entitled to a voucher worth €200 (\$213) to spend on theater visits, museums, or movies. Spain is even offering €400 euros, while French and Italian youths have benefited from such culture passes since 2021 and 2016, respectively. Read more at [Time](#).

Women's sports surged in popularity

For too long women's sports have received less attention than men's sports—but in 2022 support swelled. A world-record 91,000 spectators watched Barcelona play Real Madrid in March in the UEFA Women's Champions League, while across a wide variety of sports in the US, viewing figures, funding, and prize money are up. There is, though, still a long way to go before women's and men's sports reach parity. Read more at [Forbes](#).